EAST GERMANY

## SUMMARY

1958 East German military production has not increased noticeably over the 1957 rates. Output is still limited to small arms, small arms ammunition, military explosives, and some experimental military vehicles and pyrotechnic ammunition. In the past few years total production seems to have fallen consistently short of the annual plans. This pattern seems to be continuing in 1958.

Changes and reorganizations in the AfT, (originally set up to control and coordinate military production), may be a basic reason for poor performance in some of the plants -- and vice versa. There are also recurring cases of poor design and inferior materials in military vehicles, shortages of raw materials, and non-delivery of plans and blueprints.

Probably the Soviets have first priority on materials and plant facilities for GSFG repair and maintenance, and for R&D projects in which there is Soviet interest. Certainly the plants which have been operating under AfT control for the East German Army and Police have a long history of frustration and pure bad luck, and the chances for any improvement in the near future are slim.

The AfT is believed to have been dissolved completely as of May or June 1958, with its factories being formed into a VVB subordinate to the Ministry for National Defense, and its former research and development facilities going under the control of the Department for Research and Development of the Ministry for National Defense. A mid-year reorganization of this magnitude should result in a further slow-down of military production during the last half of 1958.

Even though the AfT is now defunct, the best picture of East German military production during the last few years can probably be obtained through an examination of the various factories and activities and their relationships within the framework of the AfT as the controlling organization. The basic production and capabilities of the plants will not be likely to change -- at least in the near future -- under a new type of administrative supervision.

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PART I

## PRODUCTION, MAINTENANCE AND REPAIR FOR USSR AND GSFG

Probably the most efficient installations in East Germany are those which perform maintenance and repair, and in some cases manufacture parts, for the GSFG. At least two of these repair shops have foundries in which engine blocks, heads, brake drums and transmission cases can be cast; also equipment for manufacturing gears, axles, shafts, etc. Other plants, not directly assigned to full-time GSFG work, make components such as caterpillar track links, electrical equipment, ball bearings, optical and signal equipment, fuel gauges, truck bodies, etc. In most cases, these are single orders, and the quantities are unknown. The "Thaelmann Works" (formerly Krupp-Gruson) in Magdeburg, for instance, has produced at least 45 different parts used in assembly or repair of Soviet weapons and tanks. These include tank turrets, axles, chains, wheels, gun barrels and breechblocks.

Since the thirty-odd divisions (including AAA) of the GSFG may have as many as 40,000 transport vehicles in addition to approximately 7500 heavy and medium tanks and assault guns, 6000 APC's and 300 rocket launchers, the repair shops are probably able to keep busy. The requirement for parts and materials for these shops probably adds up to a sizeable drain on the East German economy.

In addition to repair and maintenance shops, the GSFG maintains ammunition depots which assemble and refurbish ammunition for the Soviet troops. East German industry is not involved with these depots (except possibly for supplying limited amounts of explosives); the ammunition components are imported from the USSR.

The principal maintenance and repair facilities for the GSFG are:

1. Berlin/Oberschoenewolde: The "Progress" plant. Probably the largest of the GSFG transport vehicle repair shops. Overhauls 400 engines a month; produces some major spare parts and components. Assembles some new vehicles and builds and equips mobile shop vans.

2. Borman/Waldfrieden: Overhauls passenger cars, repairs trucks, manufactures some spare parts. 500 to 600 German workers, 25 Soviet supervisory personnel.

3. Fuerstenwalde/Ketschendorf: Field and AA artillery weapons repair. Approximately three thousand workers.

4. Koenigswusterhausen/Zeesen: 53rd Vehicle Repair Shop. Can overhaul 175 wheeled vehicles per month; no engine overhauls. 600 to 700 German workers, 24 Soviet personnel.

5. Leipzig/Gohlis: Tank engine repair shop. Can overhaul 200 tank engines per month. 400 German workers, in addition to some Soviet personnel.

6. Leipzig/Lindenthal: Red Star II Plant. Rebuilds soft-skinned vehicles at rate of 50 per month; no engine repair. Approximately 250 German workers, 150 Soviet personnel.

7. Leipzig/Wahren: Red Star I Plant. Repairs approximately 200 engines per month, including work for Red Star II Plant. Top capacity probably 250 engines per month. 800 German, 25 Soviet personnel.

8. Muellrose: Major vehicle spare parts depot; can probably make major overhauls of tank engines and transmissions. 800 Soviet workers. No Germans.

9. Strausberg: Repairs small arms, AT and AA guns, optical fire control equipment. Approximately 12 medium and heavy guns repaired monthly. 80 Soviet personnel; approximately 80 Germans, but German workers are not permitted in certain shop areas.

10. Wuensdorf: Tank repair shop, overhauling approximately 60 tracked (medium) tanks and SP guns monthly. Approximately 600 Soviet and 500 German workers.

11. Kirchmoeser: 120th Tank Repair Shop. Can overhaul 60 tanks monthly; actual average about 30 per month. Approximately 1200 Soviet personnel and 500 Germans. For heavy tanks and SP guns.

Repair shops assigned to particular Soviet units are:

1. Alt Luedersdorf; 2nd Guards Mecz. Army: Tank and assault gun repair and parts depot; 20 - 30 vehicles per month.

2. Biesenthal; 4th Guards Mecz. Army: Repair and maintenance of light artillery and mortars. 75 Soviet personnel.

3. Dresden; 1st Guards Tank Army: 100th Vehicle Repair Shop. Handles both tracked and wheeled vehicles. 400 Soviet personnel.

4. Eberswalde; 4th Guards Mecz. Army: 468th Field Tank Repair Base, for tank repair and spare parts depot. Approximately 150 Soviet personnel.

5. Fuerstenberg; 2nd Guards Tank Army: 74th Tank Repair Base. 3rd and 4th echelon repairs on 20 - 30 tanks monthly; capacity about 45 tanks monthly. Approximately 300 Soviet personnel.

6. Kummersdorf; 3rd Guards Mecz. Army: Tracked vehicle repair shop. Soviet personnel only, number unknown.

7. Meissen; 1st Guards Tank Army: 96th Tank Repair Shop. 3rd and 4th echelon repairs of approximately 25 tracked vehicles monthly. Also manufactures some spare parts. Total personnel 250 to 300, both German and Soviet.

8. Oberlungwitz; 8th Guards Mecz. Army: Tank repair shop, overhauling approximately 25 tanks monthly, but with capacity for 80. Approximately 250 Soviet and German personnel.

9. Schoenebeck; 3rd Mecz. Shock Army: Tank repair shop, overhauling 35 - 40 tanks monthly. Approximately 250 Soviet personnel.

10. Vetschau; 9th Mecz. Division: Tank repair shop, with capacity of 15 tanks monthly. Approximately 300 Soviet personnel.

In addition to maintenance and repair for GSFG, a number of East German plants seem to have manufactured equipment under special orders directly for the USSR.

The Carl Zeiss plant in JENA, for example, is reported to have made search lights for the Air Force, periscopes for the Soviet Navy, bomb sights and radar equipment, all with cyrillic lettering designating types, models, purpose, etc. - a clear indication that they are intended for

Soviet use. Other reports mention gun barrels, rocket parts, proximity fuzes, infra-red equipment, and even uniform cloth. Much of this equipment is probably exported directly to the Soviet Union, and it is possible that it is considered as "reparations".

Research and Development work is also going on for Soviet benefit. One example is of the Research Institute at Altengrabow (1953), which is reported to be developing and testing air defense rockets directly on order of the Soviet Control Commission, and doing further work on rockets based on German developments of World War II. Although assembly of these rockets will be carried out in the USSR, some of the parts will be made in East German factories.

PART II

## PRODUCTION FOR EAST GERMAN MILITARY USE

### CONTROLLING MINISTRY: THE "AMT FUER TECHNIK"

In October 1955, military production in East Germany was transferred from the Ministry for Heavy Machine Construction and the Ministry of the Interior to the "Amt fuer Technik" (Office for Technical Matters - AfT).

As an independent State Secretariat, the AfT ranked on the Ministry level in the Governmental structure. It was supposed to handle procurement for the GDR Ministry for Defense, and to coordinate with the State Planning Commission - a position comparable to the USSR's former Ministry for the Defense Industry.

The original organization of the AfT included six administrative departments (Cadre, Labor, Material, Supply, Finance, Investment & Planning) and eight Administrations for production:

| | | |
|---|---|---|
| Verwaltung (Administration) | I: | Weapons and Equipment |
| | II: | Explosives and Ammunition |
| | III: | Textiles and Uniforms |
| | IV: | Signal Equipment |
| | V: | Precision, Mechanical and Optical Equipment |
| | VI: | Ship Construction |
| | VII: | Vehicle Construction |
| | VIII: | Aircraft Construction |

A reorganization between April and July, 1957, consolidated the AfT into three Hauptverwaltungs (Main Administrations):

Main Admin. I: Explosives, ammunition, weapons and equipment. (Consolidating old Nos. I and II, and parts of IV and V; retaining only an R&D Section of old III; and adding a new R&D "Institute for Powder and Explosives".) Chief, WINKELMANN.

Main Admin. II: Ships and Motor Vehicles. (Consolidating old Nos. VI and VII.) Chief, STECH.

Main Admin. III: Aircraft production and research (Old VIII). Chief, PETZOLD.

Under this consolidation, the former Administration III for Light Industry seems to have been dissolved, with only a R&D laboratory for textiles, protective clothing and light industrial products retained under the new Main Administration I.

Only one plant (at Leipzig) is reported to have been retained under the electro-technical department. Reports disagree on the location of the former signal equipment and optical and precision instrument departments, but the bulk of the evidence places them under the Ist, rather than the IInd, Main Administration.

(The Administration for Nuclear Research seems to be a separate organisation entirely, having no official connection with AfT and no occasion to work with it.)

The AfT had no Soviet advisors; it was set up as an all-German organization. Soviet influence was wielded through the German Defense Ministry and through the Warsaw Pact.

The AfT's mission and responsibility was to supply the East German Armed Forces, the Police, and the Security Forces, with modern armament and equipment. This was to be handled in close coordination with the other Soviet Bloc nations through the Warsaw Pact.

THE WARSAW PACT and the AfT: or, The Wolf and L.R. Ridinghood

There is some evidence that East Germany was not considered to be a fully participating member of the Warsaw Pact as it was originally set up. In the project for the standardization of equipment for ammunition production, for instance, the original committee consisted of Hungarians, Poles and Czechs, with USSR observers; East German representatives were invited to join the subcommittee only after the meetings began in June 1955.

By early 1956 however the East Germans were taking full part in the Warsaw Pact deliberations. This coordination was handled by the AfT. Permanent representatives were the AfT chief, Ernst WOLF, and WINKELMANN, the chief of AfT Branch I (Explosives, Ammunition, Weapons and Equipment). Military advisors (usually high-ranking officers of the East German Army) and additional heads of AfT sections were assigned according to the technical subjects which were to be discussed at the meetings.

The High Commission of the Warsaw Pact meets semi-annually in Moscow. Each of the member States is represented by a delegation comparable to that of the East Germans.

The Permanent Secretariat of the Warsaw Pact, which handles interim problems and maintains continuous contact with the member nations, is located in Moscow and is made up entirely of Soviet personnel. Although the member nations maintain counterpart Secretariats in their own countries, this arrangement probably is designed to maintain a predominant Soviet influence in the Pact.

R&D and production problems are discussed in the Pact meetings, and are assigned for solution to the member nations best equipped to handle them. The meetings also consider and decide on coordination of production and distribution of military output among the member States.

In the March 1956 High Commission meeting, it was arranged that each member state should prepare a technological study on its own production and R&D projects - in the Russian language. These reports were due at the Permanent Secretariat by October 1956. The (Soviet) Secretariat was to review the reports and then to distribute them to the other member nations by March 1957. This project was apparently suspended, possibly because of the Polish and Hungarian situations.

In another project, each country was to submit its requirements for production machinery (presses, lathes, automatic screw machines, etc.) for ammunition from small arms types up through 152mm shells. These were coordinated, and decisions were made on standardization of types throughout the Pact nations; also as to quantities and types of machines to be produced by each country, and how they were to be distributed to the other member nations. Although feeling ran high during the discussions, this project seems to have been finally accomplished.

The terms of the Warsaw Pact provide for complete cooperation and exchange of information among the member states, but the actual working relationships fall short of this ideal.

Cooperation between the GDR and the CSR is excellent, but the Germans hesitate to exchange important information with Poland since Gomulka's rise to power; and with the other Satellites the GDR has very little contact through the Warsaw Pact. Exchanges with the Russians are one-sided; the Satellites supply information but the Russians do not contribute any data of real value in return.

A number of Warsaw Pact decisions directly affect East German military production:

The GDR is not scheduled to produce any large-caliber artillery ammunition. Warsaw-Pact plans for standardization include machinery for large-caliber shells and cartridge cases in the other Pact countries, but there is no equipment now available in the GDR for production of the larger calibers, and no production was scheduled or planned up to mid-1957, (the date of latest information on this subject).

It is possible that the Soviets prefer to manufacture and sell this large ammunition in order to keep their excess capacity operating, and also they can make money on the deal.

(Samples of 82 and 120mm mortar shells were made for the GDR Defense Ministry late in 1956. At that time, yearly requirements were stated as 50,000 - 120mm and 100,000 - 82mm shells, also 120,000 hand grenades annually. However after the samples were delivered there were no further requests for serial production.)

Under the Warsaw Pact, the GDR, along with other Pact members, is assigned to conduct R&D work on steel cartridge cases. Improvements of

tracer and signal ammunition, signal equipment, precision instruments and optics are specifically assigned to the GDR.

East Germany will produce specified signal equipment for distribution to certain other Bloc nations.

The GDR will not build production facilities for Nitropenta (PETN: pentaerythrite tetranitrate); but will import its requirements from Poland or the CSR, both of which have an excess supply. The GDR requires about 25 tons of PETN per year.

A treaty between Czechoslovakia and East Germany, signed in April 1957, provides bilaterally for the kind of cooperation in military technology which, under the Warsaw Pact, was supposed to exist between all the member nations.

The treaty terms with the CSR include coordination of all investments and R&D projects and continuous cooperation on scientific and manufacturing problems to develop the most economical and efficient production methods.

Under this treaty the two States are actually working together on small arms production, shaped charges, rocket propulsion units (both solid and liquid fuel), small arms ammunition and explosives of various types. The GDR is to provide some of the funds and manufacturing equipment to assist in the building of a new Czech powder plant about 60 km. east of Prague.

Under the AfT's 1957 consolidation, a number of plants were dropped from direct AfT control. These were probably the plants which worked primarily on consumer goods, with only a small part of their facilities devoted to military production. Apparently these or any other plants could be called in on an ad hoc basis to assist on AfT projects when they were needed. The AfT was also authorized to establish direct liaison with GDR research centers, scientific institutes, universities and industrial research facilities for assistance in R&D projects.

HAUPTVERWALTUNG I: (Explosives, ammunition, and weapons)

After the July 1957 reorganization, the following plants were under the jurisdiction of Hauptv. I:

Section 1: (Weapons)

VEB Ernst Thaelmann Werke, at SUHL/Thueringen

Originally formed in December 1951 by the merger of five factories.

| | | |
|---|---|---|
| Plant #1: | Formerly | HAENEL & CO. |
| " #2: | " | SAUER & SOHN |
| " #3: | " | GEBRUEDER MERKEL |
| " #4: | " | GREIFELD |
| " #5: | " | HAENEL & CO.'s Training shop |

(The Simpson Co. at HENRICHS near Suhl was supposed to join the Combine in 1952 but this arrangement apparently fell through. In 1956 SIMPSON was still independent, manufacturing motorcycles, bicycles and shotguns, and under pressure from Ernst Thaelmann either to stop manufacturing shotguns or to join up with the Thaelmann Combine.)

In addition to weapons for civilian and military use, products of the THAELMANN Combine included civilian goods such as sewing machines, Diesel injection pumps, pneumatic mining hammers and drills, turbine blades, adding machines.

Under a 1953 reorganization, the COMBINE was set up in five "production Branches", centrally administered. Only Branch II (the former Haenel Plant) made military type weapons.

Production Branch I (Former SAUER & SOHN): Hunting guns (sold to USSR, Satellites, and India, Egypt, Scandinavian nations), pneumatic mining hammers and drills, turbine blades, adding machines.

Production Branch II (Formerly Haehnel): Repaired 95,000 carbines in 1956; manufactured pistols, small bore rifles and air rifles.

Planned for 1957: 15,000 Makarov (9mm Soviet-type) pistols
54,000 Small-bore rifles, Models IV & V
5,000 Model 98K carbines to be repaired
7,000 Wooden combat practice rifles
60,000 Model 49a air rifles
About 50 deluxe model .22 cal. rifles
1.5 million East marks worth of replacement parts for weapons

(Production of Sov-type small arms had not yet begun on 1 April 1957 - - 02, USAREUR. S)

1956 plans include production of the Soviet SKS semi-automatic carbine, presumably for the KVA. Extensive preparations indicated that a large number of these carbines would be made.

Branch II also produces pipe fittings and measuring gauges. Production of sewing machines was discontinued in January 1956.

Production Branch III (Formerly Merkel): Hunting guns, including a combination shotgun and rifle in over-under arrangement and an over-under double-barrel shotgun. 1,000 dowel pistols were produced in 1956 and 3,000 were planned for 1957.

Production Branch IV is the training school for all Branches of the Combine, also some outside plants. A new forge to be completed in 1959 will triple the capacity of this Branch.

Summary of Weapons Production Program

1956: 95,000 Model 98K carbines of WW-II stocks overhauled for use of KG police & Kampfgruppen.

24,500 Walther type pistols manufactured for HVDVP. (Volks-Police)

5,050 small bore rifles and 60,000 air rifles delivered to GST. (Civilian)

1957: Production of Soviet MAKAROV type pistols; initial order 15,000. Probably NVA.

54,000 small bore rifles and 60,000 air rifles to be delivered to the GST. (Civilian use and export)

1958: Production of Soviet SKS type carbine, probably for NVA.

VEB INDUSTRIEWERK, Halle-Nord, HALLE

Products: Formerly military beds and equipment. Now converting to manufacture of weapons and heavy field equipment, also machinery.

Approximately 500 employees.

This was formerly the Siebel (aircraft) Werke. In 1956 it began building an automatic ("remote-controlled") ditch-digger for the NVA. By mid-1957 it was producing various types of military engineering equipment, including trailers, road construction machinery, portable steel radio masts, ponton-carriers, sectional steel tank bridges and tank loading ramps, all for the NVA. The plant also put together some air-raid protection equipment, including ventilators and chemical decontamination units (possibly road-sprayers or similar equipment).

The tank loading ramps were designed to permit tanks to be run onto the ends of flat-cars, then all the way up to the forward end of the train by means of additional flat sections which bridged the gaps between cars.

SMALL ARMS PLANT, ANNABERG-BUCHHOLZ

A new small-arms plant was planned to be set up in unused shops of the Wismut AG (Uranium-Mining Corporation), in Annaberg-Buchholz (Cottbus Region). The 1957 production plans called for 5,000 light machine guns, type RPD, and possible later production of the 9mm Stechkin machine pistol. There is no evidence that the plant is actually in production, and the 1957 plan was probably not fulfilled.

The AfT Weapons Section has also been in contact with several other factories during the past three years. These may have been enlisted for special jobs rather than being directly under AfT control. They include:

(1) VEB "Konstruktions und Montagebetreib fuer Ausruestungen der Schwerindustrie" (Construction and Assembly of Equipment for Heavy Industry) in connection with equipment which required a collapsible loading ramp (possibly the tank-loading ramp developed by HALLE?);

(2) A Leipzig R&D office for Road Building Machinery, on the subject of graders;

(3) The THALE Iron and Steel Works about production of helmets.

Another plant whose relationship to AfT is not clear is the Vehicle Development Plant in HOHENSTEIN ERNSTHAL. A tank-laid scissors bridge, 16 meters long, carried on a T-34 tank chassis,

was planned for production at this plant in 1958. Only three bridges were to be produced during the year, from plans which were completed late in 1957. This is probably experimental production, and intended for the EGA.

These bridges are intended to permit tank crossings of small rivers, tank trap ditches, and the like. Any standard tank could be adapted to carry the bridge by removing the turret and attaching the bridge-laying device. It was planned that the whole operation of adapting the tank should take about 35 minutes.

MAIN ADMINISTRATION I (Continued)

Section 2: (Explosives and Ammunition)

1. VEB Sprengstoffwerk I, SCHOENEBECK/Elbe: Ca. 3000 employees:

| Products: | Plan for 1957 | Yearly Capacity |
|---|---|---|
| Gelatine Donarit | 13,500 tons | 17,640 tons |
| Donarit | 9,200 " | 15,000 " |
| Chloratit | 650 " | 5,100 " |
| Electric Igniters | 28 million | 39.7 million |
| Blasting caps | 42 " | 48.8 " |
| Air rifle pellets | 84 " | 146 " |
| Cal. 22 Long rifle ammunition | 72 " rds. | 72 " rds. |
| Blank cartridges, carbine | 7.2 " " | 7.2 " " |
| Animal slaughtering ctgs | 3.6 " " | 25 " " |
| Shotgun shells | 8.6 " " | 21 " " |
| Trinitrotoluol | 2,300 tons | 4,020 tons |
| Binitrotoluol | 1,200 " | 3,700 " |

Planned for 1958

New-type hand grenades (RPG-5?) 30,000
M-43 MG cartridges 4 million rds.
Explosives and civilian production at approximately same as 1957 rates.

A new section for continuous-method production of TNT is planned to start operation in late 1959. Planned capacity at that time will be 500 tons per month, half in the continuous and half in the non-continuous process.

2. VEB Sprengstoff Werk II, GNASCHWITZ: Ca. 700 employees:

| Products: | Plan for 1957 | Yearly Capacity |
|---|---|---|
| Gelatine Donarit | 8,000 tons | 8,200 tons |
| Weather Arit | 460 " | 1,600 " |
| Black Powder and Pyrotechnical Powder | 280 " | 300 " |
| Double-tarred time fuse | 7,200 km. | 37,000 km. |
| " " Igelite-covered time fuse | 5,800 " | 8,600 " |

Planned for 1958

In addition to approximately the same quantities of above materials, limited production of a new plastic anti-vehicular mine, naval mines, and 82mm smoke shells.

The Gnaschwitz branch plant in LANGENHENNE near Freiburg, making black powder and pyrotechnical powder, began production of training simulators in 1957. The total requirement was 600,000 units of Grenade simulators and smoke candles.

3. VEB Pyrotechnik, SILBERHUETTE/Harz: Ca. 180 employees:

| Products | Plan for 1957 | Yearly capacity |
|---|---|---|
| Firecrackers for civ. use | 600,000 E. marks | 2.4 million E. marks |
| Training simulators (firecrackers, flares, smoke cartridges, ship's distress signals, etc.) | 1,400,000 E. marks | |

(Requirements for State Security and Border Police, about 180,000 signal flares annually).

4. VEB Chemiewerk KAPEN near DESSAU

Until 1956, this was a disposal and destruction unit for WW-II CW products and former CW plants. In its spare time, it makes colored smoke and tear gas in limited quantities. A group is working on plans for reconstructing old equipment (presses, etc.) for manufacture of small arms ammunition. Another small group under Dr. LOHS was working on CW research and countermeasures. After 1956 this group transferred to LEIPZIG. This plant may have been dropped from AFT control in the 1957 consolidation.

5. VEB Mechanische Werkstaetten, KOENIGSWARTHA: Ca. 500 employees:

| Products | Plan for 1957 | Yearly capacity |
|---|---|---|
| Small arms ammunition (incl. 15 million pistol cartridges) | 40 million rds. | 45 million rds. |

Production actually started at the end of 1956, with machinery and equipment imported from Czechoslovakia. Powder is also imported from Czechoslovakia; 1957 requirements were about 120 tons. Cartridge cases were made of brass in 1957, since the required deep-draw strip steel was not available. A change to steel cases was planned for 1958.

As of 1957, the KOENIGSWARTHA plant was not entirely satisfactory. The annealing capacity was found to be too low to permit a sustained production flow, and two more annealing furnaces were to be added. These should increase over-all capacity from 45 million to 60 million rounds. Equipment for loading and assembly of incendiary and tracer ammunition was not supplied in the original package. Some of the Czech machinery was of mediocre quality, and the designs were not noticeably advanced over the types that were in use during World War II.

Although this KOENIGSWARTHA plant has ample capacity to supply the normal needs of the East German armed forces, plans are going forward to construct another plant of equal capacity at SCHLEPZIG, Kreis Cottbus, beginning in 1959. The machinery will again be imported from Czechoslovakia, but it may not be available until 1960 since the Czechs have priority orders for this type of equipment, probably from Egypt and the Middle East.

In addition to the possible need for additional capacity in case of hostilities, the East Germans apparently do not want to be dependent on just one location for their small arms ammunition requirements.

The KOENIGSWARTHA plant seems to be compact and rather well-planned. In addition to the usual administration buildings, housekeeping and guards facilities, and storages, there are separate bunkered or revetted shops for igniter assembly and production, primer loading, igniter batch mixing, igniter storage, powder storage and finished ammunition storage. Also there are a single large main production building, a machine shop, a press shop, a paint shop, a laboratory, and a firing range.

During the 1955 - 1957 period, the following plants were subordinate to the AFT in the QM, Radio and Telecommunications, and Precision Instruments and Optics Sections. (After the reorganization of 1957, many of them may have been transferred from the AFT, although they probably remained available for special jobs):

| Plants | Products |
|---|---|
| VEB Fernmeldewerk, Leipzig;<br>VEB Funkmechanik, Leipzig: | Mostly radio equipment and tape recorders for civilian use; limited military production. |
| VEB Radio Equipment Factory at Dresden: | Research in radio equipment for military use. |
| VEB Optischewerke, RATHENOW: | Optical instruments, battery commander telescopes, aiming circles, periscopes. |
| VEB Zeiss Ikon, DRESDEN: | Bomb sights, fuze components, gyroscopes. |
| VEB Geraete und Reglerwerke, TELTOW: | Optical direction finders, test stands, theodolites and precision-leveling equipment. |

er plants which have been in contact with the AfT, although their direct subordination was never confirmed, are:

| Plants | Products |
|---|---|
| VEB Carl Zeiss, JENA: | Bombsights, link trainers, sighting and aiming devices, infra-red equipment, etc. One of the largest plants of its kind, it is reported to have manufactured equipment for both the USSR and Communist China. |
| VEB Keramische Werke, HERMSDORF;<br>VEB Funkwerke, HALLE;<br>VEB Geraetewerk, KARL MARX STADT;<br>VEB Messgeraetewerk, QUEDLINBURG;<br>VEB Messgeraetewerk und Armaturenwerk Karl Marx, MAGDEBURG: | Seem to have manufactured equipment of various types for the AfT, although primarily in civilian production. |

Under the Quartermaster Section, from 1955 to 1957, the AfT controlled a number of clothing and leather factories, including:

| Plants | Products |
|---|---|
| VEB Clothing Factory, ROEDELBACHTAL<br>HALLESCHE Clothing Factory, HALLE<br>BURGER Clothing Factory, BURG<br>Feintuch Cloth Factory, FINSTERWALDE<br>LEIPZIG Clothing Factory | Uniforms and clothing for GDR Navy, Air Force, Army and Police. |
| VEB "Motor" Shoe Factory at WEISSENFELS | Boots and leather straps for the EGA. |
| VEB Saddle & Leather Factory, LEIPZIG<br>Harness & Leathergoods Factory, TAUCHA | Tents, storage bags, field packs, ammunition belts, stretchers. |

All these factories seem to have been removed from AfT control after the 1957 reorganization. Only an R&D Section of the Quartermaster Administration is reported to have been retained by the AfT.

MAIN ADMINISTRATION II: (Ships and Motor Vehicles)

Although tank parts are produced for Soviet repair plants, there is no evidence that any type of AFV's have been manufactured for East German military forces. One report mentions a survey made in February 1957 to judge the production capabilities of various factories for such production, and indicates that planning for future tank production depends on whether the results of the survey indicate good possibilities, in this line.

Another report mentions the manufacture of assault guns in May 1957, but indicates that these were a special order for the USSR - possibly experimental, although a total of 105 guns is mentioned.

Main Administration II controls the following plants:

1. VEB Motor Factory at WURSEN, employing approximately 500 workers.

   This plant repairs and overhauls motors and parts used by the military, but does not produce equipment.

2. VEB Motor Factory at KARL MARX STADT (formerly CHEMNITZ):

   Makes the P2M, a jeep type vehicle; the P2S, called the Schwimmwagen; and a Mod. P-2 staff car, the Generalswagen.

   Approximately 800 P2M and 8-10 P2S types were assembled in 1956. Production was supposed to run at about 200 a month during 1957, but bottlenecks seem to have developed in transmissions and front-wheel suspensions, and in early 1957 half-finished P2M's were piling up on blocks in the factory yard ... No P2S types were made in early 1957.

The plant has had troubles with the P2M transmission systems, many of which had major faults and had to be returned to their factories. Also, on about half of the assemblies the suspension systems broke down very soon after delivery. The trouble was apparently in the way the torsion bar bracket was anchored to the ball-joint housing. The bracket frequently worked loose from the housing so that the road shock was absorbed by the bracket rather than the torsion bar. This resulted in rapid metal-fatigue and eventually the bracket sheared off. In January 1957 they tried cast steel ball-joint housings, to which the torsion bar anchor bracket was welded. Test results were good, and this new type of housing was installed on a number of the vehicles which had already been delivered to EGA units.

Another difficulty was with the chassis, which frequently cracked at the center of the cross frame. In June 1957 four newly-designed chassis with heavier cross members were constructed and were being tested in October 1957. In already assembled units, the weak points of the chassis were being reinforced by welding.

A third difficulty was with freezing-up of the wheel ball joints due to insufficient lubrication. Plastic ball-joint housings were tested with good results. It may have been due to these troubles that the price of the P2M was reduced from 35,000 to 25,000 East marks in November 1956.

The plant had so many difficulties that it is doubtful whether many vehicles were turned out during 1957. In the middle of the year the management was considering converting to motorcycles, trailers, and mobile repair shops; and in October a notice announced that the KARL MARX STADT Engine Plant (VEB Motorenwerke) would take over the Automobile Plant, and that production of military vehicles would be stopped or at least curtailed by December 1957.

The amphibious version of the jeep, the P2S, was even less satisfactory than the P2M. It was a waterproofed version of the same design, but it had difficulty negotiating inclines from water back to shore; special paths had to be constructed during tests to get it back on land again. The P2S was probably not made during 1957.

Development of improved models of both types began during the summer of 1957. Comparative tests of the Soviet GAZ-69A, the GFR DKW and the Mercedes Unimog with the P2M in sandy desert of Egypt had shown the Unimog to be best, and the P2M the least satisfactory of the lot. The new versions to be called the P3M and P3S, were supposed to go into production beginning in August 1958, but it is not certain that the Karl Marx Stadt plant will produce these new types.

3. VEB "Ernst Grube" Motor Vehicles Factory in WERDAU:

Produced the G-5, a five-ton truck, for the EGA. Estimated output from 1952, between four and six thousand. There have been rumors that production stopped in May 1957. An improved version

was planned for 1958, in which the liquid-cooled engine would be replaced by an air-cooled Diesel; the twin-wheel rear axles by single-wheel axles; and the air filter by an oil-bath filter.

The civilian version of the G-5 is used as a dump truck. According to several reports, however, the EGA has taken 70% of the total output. They are used by the military as prime movers, load trucks, and special purpose vehicles (workshops, pontoon carriers, crane trucks, tank trucks, staff busses).

In addition to the plants at WURSEN, KARL MARX STADT, and WERDAU, two motor vehicle repair plants at Altenburg and Neubrandenburg are believed to have been directly under AfT control, working for the EGA.

Several other motor vehicle plants have worked on military vehicles, although they may not have been completely under AfT jurisdiction. These include:

The VEB Kraftfahrzeugwerk Ehaenoxen, in ZITTAU, which was supposed to be developing a four-wheel-drive cross-country military truck in 1957. There were to be two versions of this truck: one with a 100 HP 6-cylinder motor, the other with a 160 HP, also 6-cylinder; both air-cooled.

The Traktorenwerke, Schoenebeck, developed the HKS-13 half-track in 1955. This thing is very similar to the 18-ton ZSKW (half-tracker prime mover) used by the Germans during World War II.

One prototype of the HKS-13 was tested in 1956. This one probably was not satisfactory, since another prototype was completed in May 1957 and was under test later in that year.

The VK-22 full-tracked prime mover and the VKS-23 full-tracked amphibious prime mover were also developed at Schoenebeck. The VK-22, developed in 1955 and tested in late 1956, was designed for the same purpose as the HKS-13 - towing heavy artillery and tanks, and transporting cargo, personnel, ammunition and weapons. It was planned to compare the performance of these two and to put the better one into production.

The VKS-23 (Vollkettenschwimmfahrzeug - full-tracked amphibious vehicle, model 230 was the amphibious version of the VK-22. The water-propelling unit was difficult to work out, and so this amphib was not completed in 1956.

An amphibian staff car, the "Wiesel", comparable to the WW-II amphibian Volkswagen, was also designed in 1956, and one model was made at Schoenebeck.

(A KS-05 personnel carrier and prime mover designed in 1953 was not satisfactory and apparently was never put into production.)

There is no information on plans for serial production of any of the above vehicles.

The VEB Schwermotoren-Industrie at DOEBELN is reported by a single source to have produced 383 heavy armored cars, 608 light armored cars, and 105 assault guns during May, June and July 1957; a total production

of 1096 cars and guns in three months. Deliveries for May and June included 208 cars to the East German Army, 34 to Poland, 72 to China and 265 cars plus the 105 assault guns to the USSR. There is no information on the types of either armored cars or assault guns.

Two Auto Body Plants, in Aschersleben and Dresden, have also been in contact with the AfT, although perhaps not directly under AfT control. These plants have worked on various types of trailers and vans, including radar equipment vans and tank trucks, for military use.

Main Administration II also included shipbuilding, and seems to have controlled at least three shipyards, at Woolgast, Koepenick, and Warnemuende. These are believed to have built police boats, speed boats and small destroyer craft for East German use.

MAIN ADMINISTRATION III: (Aircraft Industry)

Plants at PIRNA, DRESDEN, SCHKEUDITZ, LOMMATSCH, and LUDWIGSFELDE have been in contact with the AfT administration dealing with aircraft. After the reorganization some of these plants may have been dropped from AfT control. One report indicates that only the research laboratories at PIRNA and plants at DRESDEN were working for the AfT after June 1957.

The first indication of a further drastic change in East German administrative control of military production was a June 1958 report that the Aircraft Industry had been reorganized and was no longer under AfT control. Subsequent reports indicate that the general reorganization of East German economic ministries included those involved in military production under the AfT.

While the plants producing non-military goods were grouped into at least 66 VVB's (Associations of People's-Owned Enterprises), with some of the former Ministries' administrative functions being taken over by the State Planning Commission, the former AfT plants (except aircraft) seem to have been reorganized into one VVB under the Ministry for National Defense.

A reliable report states that the basic plan (which seems to have been carried out with little if any change) was offered in the form of a motion at a Presidium Meeting of the GDR Council of Ministers on 13 February 1958, with the following main points:

The VVB "UNIMAK" was to be created and was to assume control of the enterprises and institutions which were previously subordinated to the AfT. The basic statute of the VVB "UNIMAK" was to be established by the Ministry for National Defense in coordination with the State Planning Commission, and the following enterprises and institutions were to be subordinated to the VVB "UNIMAK":

| Factory | Former AfT Main Administration |
|---|---|
| (1) VEB Ernst-Thaelmann Werk in SUHL | I |
| (2) VEB Industriewerk Halle-Nord in HALLE | I |
| (3) VEB WERKzeug-und Geraetebau (Instrument and Tool Construction) Wiesa in JOHANNGEORGENSTADT | Unknown |
| (4) VEB Sprengstoffwerk I (Explosives Works) in SCHOENEBECK | I |
| (5) VEB Sprengstoffwerk II in GNASCHWITZ-DOBERSCHAU | I |
| (6) VEB Pyrotechnik (Pyrotechnics) in SILBERHUETTE | I |
| (7) VEB Mechanische Werkstaetten in KOENIGSWARTHA | I |
| (8) VEB Spreewerk in LUEBBEN | Unknown |
| (9) VEB PEENEWERFT in WOLGAST | II |
| (10) VEB Reparaturwerk (Repair Shop) in NEUBRANDENBURG | II (?) |
| (11) Motorenwerk (Motor Works) in WURZEN | II |
| (12) VEB Arewa in ALTENBURG | II (?) |
| (13) VEB Reparaturwerk in FRIEDRICHSFELDE | Unknown |
| (14) VEB-Konstruktionsbuero fuer Anlagen (Construction Plans Office) in BERLIN | Unknown |
| (15) DHZ - Pyrotechnik (DHZ - Deutsche Handelszentrale - German Trade Agency) | Unknown |
| (16) Institut fuer Schiffbautechnik (Institute for Ship Construction Technology) in WOLGAST | II (?) |

The Department for Research and Development (Forschung und Entwicklung) of the Ministry for National Defense was to assume direction of the following enterprises formerly subordinated to the Office for Technical Matters:

| Factory | Former AFT Main Administration |
|---|---|
| (1) VEB Chemie (Chemistry) in KAPEN | I |
| (2) VEB Chem.-Techn. Laboratorium (Chemical-Technical Laboratory) in FINOWFURTH | I (?) |
| (3) VEB Chem.-Techn. Laboratorium in LEIPZIG | I (?) |
| (4) VEB Entwicklungswerk Funkmechanik (Development Installation for Wireless Mechanisms) in LEIPZIG/PLAGWITZ | I |
| (5) VEB Konstruktionsbuero Elektromechanik (Construction Office for Electronic Mechanisms) in DRESDEN | I (?) |
| (6) VEB Physikalische Werkstaetten (Physics Workshops) in BERLIN-Rahnsdorf | I (?) |
| (7) VEB Geraetebau (Apparatus Construction) in DRESDEN | I (?) |
| (8) VEB Kraftfahrzeugentwicklungswerk (Vehicle Development Works) in HOHENSTEIN-ERNSTTHAL | II (?) |

The following enterprises and institutions formerly subordinated to the Office for Technical Matters were to be assigned to the following authorities:

| | |
|---|---|
| (1) Institut fuer Lichbogenforschung (Electric Arc Research) -Heinrichbeck in MEININGEN (PB-0003) to the German Academy of Science | Former Adm. subordination unknown |
| (2) VEB Wissentschaftlich-technisches Buero fuer Kraftmotorenbau (Scientific-Technical Office for Power-Motor Construction) in BERLIN-Adlershof to the Department for Machine Construction of the State Planning Commission | " |

(3) Handelsgesellschaft (Trade Association) "Techno-Kommerz" G.M.B.H. (G.M.B.H. - Gesellschaft mit beschraenkter Haftung - Company with Limited Liability) in Berlin to the Ministry for German and Foreign Trade — Former Adm. subordination unknown

The technical-scientific and economic leadership in the area of international cooperation which was previously exercised by the Office for Technical Matters was to be assumed by the State Planning Commission.

Within the Ministry for National Defense a job position, Chief of Economy, was to be created. The Chief of Economy was to be subordinated to the Deputy Minister for Technology and Arms (Technik und Bewaffung) and to have the following agencies subordinated to him:

(1) VVB UNIMAK

(2) The Department for Research and Development of the Ministry for National Defense

(3) VEB Projektierungsbuero (Projects Office)

(4) The Resolutions Office (Beschlussamt) in SUHL

The Management for the Aircraft Industry of the Office for Technical Matters was to be re-organized into a VVB Aircraft Industry (Luftahrtindustrie), subordinate to the Department for Machine Construction of the State Planning Commission. The basic statute and organization of the VVB Aircraft Industry was to be promulgated by the Chairman of the State Planning Commission.

With the passage of this law the Minister for National Defense was to be commissioned to work jointly with the Chairman of the State Planning Commission.

Apparently the purpose of this latest reorganization was to re-group the factories which were actually producing or repairing military materiel under the VVB "UNIMAK", while those which were primarily engaged in development or research were to be separately administered.

There are no indications as yet of any changes in the basic production of these plants. It seems likely that there will be no major changes; i.e., the former Main Administration I factories will continue to manufacture weapons and ammunition, the II group will continue work on motor vehicles and ships, etc.

Since there is no mention of either the projected "Small-arms Plant" at Annaberg-Buchholz or of the VEB Schwermotoren-Industrie at DOEBELN, it seems possible that the original reports on these plants were inaccurate, and that neither is engaged in military production.